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CROSSTALK CANCELLATION FOR INTEGRATED CIRCUIT PACKAGE CONFIGURATION

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ABSTRACT OF THE DISCLOSURE

A technique has been developed whereby crosstalk induced in a first electrical connection by current flow at an adjacent second electrical connection is at least partially cancelled by an opposing crosstalk signal induced at an inductive coupling between electrical traces extending from or toward the first and second electrical connections, respectively. Crosstalk cancellation is provided by orienting the electrical traces such that current flow through the second electrical connection and respective electrical trace induces an opposing crosstalk signal at the inductive coupling. In some configurations, an inductive coupling between electrical traces includes essentially parallel portions of the traces and an aperture in a voltage plane. In some configurations, cancellation of crosstalk induced by multiple adjacent electrical connection is provided. Crosstalk inducing electrical connections include pins, solder bumps, leads, wires, edge connectors, etc. In various configurations, crosstalk cancellation is provided on a board, on a semiconductor package, or on a semiconductor integrated circuit. The crosstalk inducing electrical connections may be integral with the board, package or integrated circuit or may be mated therewith.